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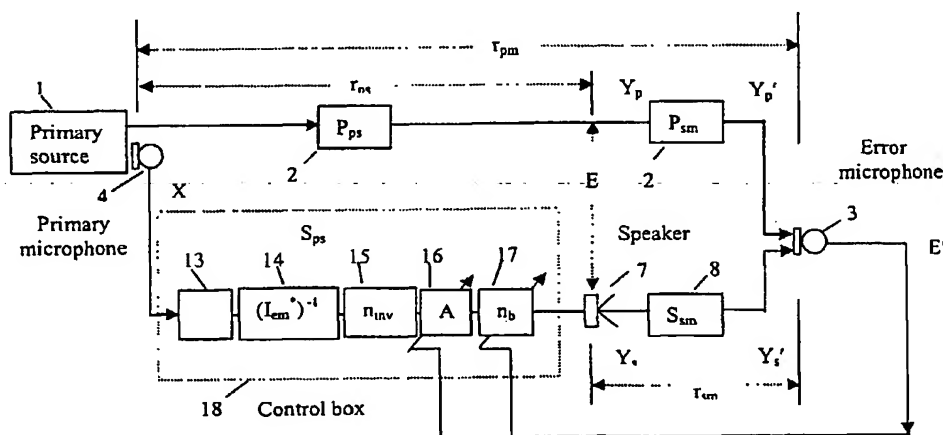
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(54) Title: ACTIVE NOISE CONTROL SYSTEM IN UNRESTRICTED SPACE



(57) Abstract: The adaptive speed to changes in a primary source noise (1) is increased through a noise detecting means (4) feeding parallel multi-passband means (5) and multi-transverse adaptive filter means (6), where each adaptive filter has its own individual adaptive step size means (11) adjusted automatically according to the signal strength at each passband output. The output from each of the multi-adaptive filter means (6) drives a secondary canceling source generating means (7) where each multi-adaptive filter means (5) is automatically adjusted to produce minimum sound in its passband at an error detecting means (3). Alternatively, the output from the noise detecting means (4) is negated through a negation means (13), passed through a plant neutralization inverse means (14) and an inverse delay means (15) before driving the secondary source generating means (7). The secondary source output is aligned and match in amplitude to that of the primary source (1), through a delay buffer means (16) and an amplitude regulator means (17), which are adjusted successively until the output at the error detector means (3) is a minimum.